



**US Army Corps
of Engineers®**
New Orleans District

Peer Review

Calcasieu River Basin, LA

May 2007

1) **Project Description**

- a) **Decision Document.** The Calcasieu River Basin, Calcasieu Parish, LA feasibility study addresses flooding and stream restoration issues associated with the Basin in Calcasieu Parish. The Calcasieu River is the major drainage way within Calcasieu Parish. The adjacent properties are being developed for residential, commercial, and industrial use. The feasibility phase of this project is cost shared 50/50 with the project sponsor, the Calcasieu Parish Police Jury. This study will develop alternative plans for addressing flooding problems and stream restoration for the Calcasieu River Basin, for the evaluation and screening of those plans, and for the development of a plan to be recommended for implementation as a Federal project.
- b) **General Site Description.** The Calcasieu River Basin is located in Southwestern Louisiana in Calcasieu Parish. The study areas for this feasibility study are Calcasieu Parish (specifically the southwest portion of Lake Charles (Oak Park), Bayou Contraband, Prien Lake Channel and Henderson Bayou, Hippolyte Coulee, Black Bayou, Bayou Choupique, Bayou d'Inde, and Kayouchee Coulee).
- c) **Project Scope.** The Calcasieu River Basin project will include all the necessary requirements to complete a feasibility study of the flooding problems and stream restoration needs in the drainage districts listed above. Additionally, the completed project management plan provides for the development and selection of the alternative plan that reasonably maximizes net economic development benefits. Along with the assessment of the environmental and social effects of the selected plan. At present, construction costs have not been developed, but are estimated to be below \$40 million
- d) **Problems and Opportunities.** The current scope of work defines the tasks required to complete the Calcasieu River Basin feasibility study as currently understood. The required tasks use Federal criteria to evaluate the plan developed in the reconnaissance phase into the tentatively selected plan for development. The required tasks and related costs are subject to modification during the course of the study if plans are changed. Amendments to the scope of work will be developed through consultations between the Federal and non-Federal cost-sharing partners. Amendments to the scope of work must be agreed upon by all cost-sharing partners prior to initiating any new task. If changes in the scope of work are required, the total study cost will be adjusted to reflect such changes. The cost sharing for any changes shall be 50/50 between The Federal and Non-Federal sponsor.
- e) **Project Delivery Team.** The project delivery team (PDT) is comprised of those individuals directly involved in the development of the decision document. Contact information and disciplines are listed below.

Last	First	Discipline	Phone Number	Office Symbol	Org. Code
Wingate	Mark	Project Management	504-862-2512	PM-W	B2H4800
Sims	Nick	Project Management	504-862-2128	PM-W	B2H4800
Baldini	Tony	Economics	504-862-1913	PM-AW	B2H4610
Beck	Dave	Waterways	504-862-2406	ED-LW	B2L0400
Bonanno	Brian	Geotechnical	504-862-2983	ED-FD	B2L0900
Daigle	Jeremy	Systems & Programming	504-862-2170	ED-S	B2L0500
Duplantier	Wayne	Relocations	504-862-1989	ED-SR	B2L0500
Gannon	Brian	Project Engineering	504-862-2567	ED-SP	B2L0500
Marceaux	Huey	Real Estate	504-862-1175	RE-E	B2N0200
Normand	Darrell	Cost Engineering	504-862-2727	ED-C	B2L0700
TBD	TBD	Surveys	TBD	TBD	TBD
TBD	TBD	Environmental	TBD	TBD	TBD
Vossen	Dave	H&H Branch	504-862-1913	ED-HD	B2L0200

- 2) **Quality Control.** This quality plan was developed to insure that high quality products are produced within the New Orleans District. This plan establishes the policies, procedures, and organizational responsibilities for providing quality control of planning products for this project.

The quality control plan (QCP) for the Calcasieu River Basin feasibility study provides a technical review mechanism insuring that quality products are developed during the course of the study by the New Orleans District (MVN). The technical review of the feasibility study will consist of In House Review and Independent Technical Review. An additional level of policy review for the Calcasieu River Basin study will be performed at the Headquarters of the United States Army Corps of Engineers (HQUSACE) and will insure that all applicable statutes have been applied with respect to cost sharing, project purpose, and budget criteria. All processes, quality control, quality assurance, and policy review, will complement each other producing a seamless review process that identifies and resolves technical and policy issues during the course of the study.

The review process will insure that a cost-effective solution, that meets the sponsor's requirements, is developed. Technical review will assure accountability for the technical quality of the product. Each technical review objective in the QCP will be satisfied through a seamless review process performed inside the MVN (In House Review), outside the NOD (Internal Technical Review), MVD (quality assurance of technical products), and HQUSACE (policy review). The quality control plan is based upon applicable guidance from higher authority including the Engineering Circular 1105-2-408 titled: Peer Review of Decision Documents dated May 31, 2005, Report of the Task Force on Technical Review, dated December 1994, and CELMV-ET memorandum of 23 September 1995, subject: Lower Mississippi Valley Division, Directorate of Engineering and Technical Services, Quality Control and Quality Assurance Guidance.

- 3) **Peer Review.** Based upon cost, technical expertise, and current and projected workload, the on-going technical review process for The Calcasieu River Basin feasibility study will be conducted by the New Orleans District in conjunction with another District with hurricane and storm damage prevention experience. The local sponsor will also be involved in the review process by participating in Project Delivery Team (PDT) meetings. In terms of technical expertise, the New Orleans District has a vast amount of experience and capability in order to produce a quality product for the Calcasieu River Basin feasibility study given the similarity to numerous other hurricane related projects constructed throughout the New Orleans District. Peer Review will consist of In House Review, Independent Technical Review, and External Peer Review. Peer Review Teams (PRT) will be responsible for verifying; 1) assumptions, 2) methods, procedures, and material used in analyses based on the level of analyses, 3) alternative evaluated is reasonable, 4) appropriateness of data used, and level of data obtained, 5) reasonableness of results, and 6) products meet sponsor needs and are consistent with law and existing policy.
- a) **Planning, Programs, and Project Management Division Peer Review Members.** Peer Review Members will be from the functional areas within Planning, Programs, and Project Management Division, which includes Project Management, Economics and Social Analysis Branch, and Environmental Planning and Compliance Branch. Each functional area will be represented by one or more reviewers on the PRT from the various disciplines. Thus, a minimum of three members from Planning, Programs, and Project Management Division will reside on the Peer Review Team for the Calcasieu River Basin feasibility study and will perform the In-House Review
- b) **Engineering Division Peer Review Members.** Peer Review Members will be selected from the various design offices. The members may change as the project progresses and specific project features are better defined. The PRT will consist of a Technical Review Manager (TRM) and representatives from the various design offices. The design offices include Civil Branch, Cost Engineering Branch, Design Services Branch, General Engineering Branch, Geotechnical Branch, Hydraulics & Hydrologic Branch, and Structures Branch. One or more reviewers on the TRT will represent each branch from the various disciplines. There will be a minimum of seven Engineering Division members on the PRT for the Calcasieu River Basin feasibility study and will perform the In-House Review
- c) **In House Review (IHR).** IHR will be performed inside the New Orleans District.
- i) *In House Review Teams.* The In House Review Team (IHRT) for Planning, Programs, and Project Management Division and Engineering Division will be responsible for performing an in house review of the Calcasieu River Basin feasibility study. The IHRT will be established at the planning steps of the study and will be maintained to the maximum extent possible during the life of the study. IHRT members will come from inside the New Orleans District, but must not have been involved with the preparation of the technical product

under review. The IHRT will be comprised of the same disciplines on the PDT, and will have experience in the type of analyses in which they are responsible for reviewing. Each IHRT member will be senior or equal in experience to the analyst or production person. The makeup of the IHRT may be modified as the study progresses to match the review requirements. The tiered IHR approach as described in MVD memorandum dated 14 February 2003 is the guiding instrument for IHR team establishment.

d) **Independent Technical Review (ITR).** ITR will consist of a single level study review performed outside the New Orleans District by the Planning Center of Expertise of another District.

i) *Planning Center of Expertise (PCX).* The Calcasieu River Basin feasibility study primarily falls under the PCX business program "Flood Damage Reduction." ITR for studies grouped in this program are performed in San Francisco currently under the supervision of Robert Mooney CESP (415-977-8171). The Center may conduct the ITR themselves or manage the review conducted by others. If the PCX decides to manage the review from an outside source, these potential reviewers may include nominations from scientific or professional societies, if the Center so chooses. At this time it is anticipated that the PCX will perform the ITR for the Calcasieu River Basin feasibility study.

ii) *Schedule and Independent Technical Review Team (ITRT).* As with the IHRT, the ITRT will be comprised of the same disciplines on the PDT, and will have experience in the type of analyses in which they are responsible for reviewing. Each ITRT member will be senior or equal in experience to the analyst or production person. The amount of time it will take to conduct the ITR will depend on the Flood Damage Reduction PCX workload and schedule. It is currently estimated that ITR will take no more than three months to complete and will be accomplished in mid 2008. The number of reviewers participating in the ITR should include members with expertise in the following disciplines:

NAME	DISCIPLINE	DIVISION	BRANCH	SECTION
TBD	Economist	Planning, Programs, & Project Mgmt Division (PPMD)	Economic and Social Analysis	Navigation Support
TBD	Environmental	PPMD	Planning and Compliance	Ecological Planning & Restoration
TBD	Cultural Resource Specialist	PPMD	Planning and Compliance	Natural/Cultural Resource Analysis
TBD	Recreational Resource Specialist	PPMD	Planning and Compliance	Natural/Cultural Resource Analysis
TBD	Project Manager	PPMD	Project Mgmt Branch	
TBD	Hydraulic Engineer	Engineering	Hydraulics & Hydrologic	Hydraulic Design

TBD	Civil Engineer	Engineering	Cost Engineering	
TBD	Geotechnical Engineer	Engineering	Geotechnical	Dams, Levees & Channel Slopes
TBD	Civil Engineer	Engineering	Civil	Levees
TBD	Mechanical Engineer	Engineering	General Engineering	General & Env. Design
TBD	Civil Engineer	Engineering	Design Services	Projects Engineering
TBD	Civil Engineer	Operations	Operations Mgmt	
TBD	Realty Specialist	Real Estate	Acquisition and Leasing Branch	
TBD	Appraiser	Real Estate	Appraisal and Planning Branch	
TBD	Attorney	Real Estate	Acquisition and Leasing Branch	

iii) *DrChecks*. ITR of this decision document will be conducted using the online *DrChecks* system (www.projnet.org). Use of *DrChecks* will document all ITR comments, responses, and associated resolution accomplished throughout the study delivery process.

e) **External Peer Review (EPR)**. This feasibility study does not meet the EPR criteria of EC 1105-2-408. The cost of this project is not expected to exceed \$40 million and therefore its magnitude is determined as low. The study will not contain precedent-setting methods or models, present conclusions that are likely to change prevailing practices, or contain a potential for failure or controversy. Therefore it will not be subject to the EPR process.

f) **Public Involvement**. The public will have several opportunities to comment on the feasibility study through a public involvement plan implemented through a notice of study initiation, public meetings, and workshops. This will give the Corps the opportunity to exchange information with the public and insure that individuals with an inherent interest in the study are identified and contacted allowing them to voice their views and concerns relative to the study process.

Public meetings and workshops will be conducted to gather and provide feedback from the public, formulate a consensus, and generally keep interested parties informed. A public meeting will be scheduled subsequent to the public release of the draft feasibility report and environmental assessment to present the study conclusions. Throughout the study other public meetings and workshops will be held as necessary.

Although all comments will not be provided to the ITR team, significant and relevant public comments will have been addressed by In House Review prior to ITR submittal. Any major changes in the study resulting from these comments, and all pertinent comments, will be made available to the PCX.

- 4) **Technical Review Meetings and Critical Checkpoints.** The quality control process recognizes that the appropriate place to perform one-on-one verification and IHR for Planning, Programs, and Project Management Division, Engineering Division, and Real Estate Division products will vary among the functional areas. However, the verifications will occur before the release of data and/or final products to another office/division, and may include reviewers and PDT members from other functional areas. The one-on-one verifications for technical divisions will occur numerous times throughout the current 36-month schedule. The one-on-one technical review verifications for divisions are shown as a hammock on the project schedule. Each one-on-one verification meeting will be documented and become part of the quality control records used in the quality assurance process by MVD.

In addition to the one-on-one verification process, there are also points within the study process where it is appropriate for the TRT and PDT to perform the verification process as a team. This feature of the quality control process allows the flexibility to optimize the one-on-one verification process within the functional area while maintaining the team concept during the Technical Review Meetings. Each meeting will be documented and become part of the quality control records used in the quality assurance process by MVD. These points in the study process would typically occur during: alternative screening, plan selection, and report review.

- 5) **Quality Control Records.** Quality control records for Planning, Programs, and Project Management Division and Engineering Division products will be maintained in a technical review package prepared by the PDT leader and included in the Calcasieu River Basin feasibility report. The package will consist of review comments, and a certification checklist. The review comments will summarize the major issues/comments from the independent technical review along with the response or resolution to each comment. The Planning, Programs, and Project Management Division technical review checklist will also be included within the report as a means of documenting the independent technical review. The Planning, Programs, and Project Management Division and Engineering Division checklists will assure that the major elements of the quality control plan have been followed. Planning, Programs, and Project Management Division reviewers will sign the checklist, certifying that, for their particular subject area, the document conforms to pertinent regulations, guidance, and sound professional practices. Prior to the submittal of the draft report to HQUSACE the checklist will be completed by the Planning, Programs, and Project Management Division functional chief, reviewed by the Chief of Planning, Programs, and Project Management Division, and signed by the District Commander as part of the required report documentation. Engineering Division's quality control records, comments and resolutions, will accompany the design document. The design checklists will serve as a tool for the PRT and will become part of the district's files.